

CLAIMS

1. A security device comprising a surface relief
5 microstructure which, in response to incident radiation, replays a hologram viewable within a viewing zone, the hologram comprising at least a first, holographic image element in an image plane spaced from the surface of the microstructure, the device exhibiting at least one further
10 image in a plane spaced from said image plane of the first holographic element, wherein the spacing between the first holographic element image plane and the plane of the further image is such that, on tilting the device, the first holographic image element exhibits apparent movement
15 relative to the further image, the rate of movement being at least 6mm per radian of tilt, and the product of the rate of movement and the included angle of the viewing zone defining a distance at least 20% of the dimension of the device in the direction of movement of the first
20 holographic image element.
2. A device according to claim 1, wherein the at least one further image is substantially spatially invariant relative to the device.
3. A device according to claim 2, wherein movement of the
25 first holographic image element causes the first holographic image element to overlap the, or one of the, further images.
4. A device according to claim 2 or claim 3, wherein the at least one further image is non-holographic.
- 30 5. A device according to claim 1 or claim 2, wherein the hologram defines the at least one further image as one or more second holographic image elements.
6. A device according to any of the preceding claims, wherein the plane of the further image(s) is substantially
35 coincident with the plane of the surface relief microstructure.

7. A device according to at least claim 5, wherein the first and second holographic image elements are formed in planes respectively in front of and behind the plane of the surface relief microstructure.
- 5 8. A device according to any of the preceding claims, wherein the surface relief microstructure replays the first and/or second holographic element into a set of discrete, angularly spaced subsidiary viewing zones.
9. A device according to claim 8, wherein the or each
10 element is not visible in spaces between the subsidiary viewing zones.
10. A device according to claim 8 or claim 9, wherein the subsidiary viewing zones are substantially equally spaced apart.
- 15 11. A device according to claim 9 or claim 10, wherein the viewing zones and the spaces between the viewing zones have substantially the same angular extent.
12. A device according to any of the preceding claims, wherein the first and/or second holographic image elements
20 have a dimension of at least 3mm in the direction of apparent movement.
13. A device according to any of the preceding claims, wherein the or at least one of the holographic image elements exhibits a colour variation as it moves.
- 25 14. A device according to any of the preceding claims, wherein the first holographic image element defines a symbol.
15. A device according to any of the preceding claims, wherein the at least one further image defines a symbol.
- 30 16. A device according to claim 14 or 15, wherein the or each symbol comprises a shape having a visual meaning, association or resonance with an observer.
17. A device according to any of the preceding claims, wherein the first holographic image and the at least one
35 further image are relatively movable to form a recognisable symbol.

18. An article carrying a security device according to any of the preceding claims.

19. An article according to claim 18, wherein the article comprises paper.

5 20. An article according to claim 18 or claim 19, wherein the article comprises a banknote.

21. An article according to claim 18 or claim 19, wherein the article comprises one of a cheque, voucher, certificate of authenticity, stamp, brand protection article, or fiscal
10 stamp.